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THE CCTC QUICK-REACTING GENERAL WAR GAMING SYSTEM (QUICK). USER--ETC(U)
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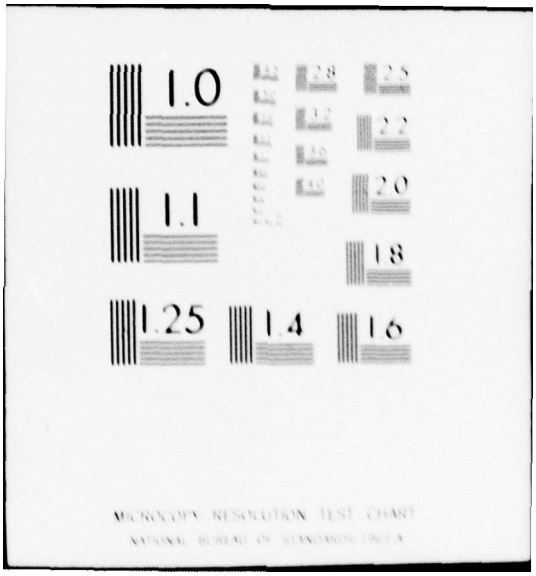
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DEFENSE COMMUNICATIONS AGENCY
COMMAND AND CONTROL
TECHINCAL CENTER
WASHINGTON, D.C. 20301

LEVEL II

(6) The CCTC Quick-Reacting General War Gaming System (QUICK). Users Manual. Volume II, Weapon/Target Identification Subsystem. Change 1.

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SUBJECT: Change 1 to Users Manual CSM UM 9-77, Volume II, Weapon/Target Identification Subsystem

(14) CCTC-CSM-UM-9-77-VOL-2-1

1. Insert the enclosed change pages and destroy the replaced pages according to applicable security regulations.

2. A list of Effective Pages to verify the accuracy of this manual is enclosed. This list should be inserted before the title page.

3. When this change has been posted, make an entry in the Record of Changes.

FOR THE DIRECTOR

J. DOUGLAS POTTER
Assistant to the Director
for Administration

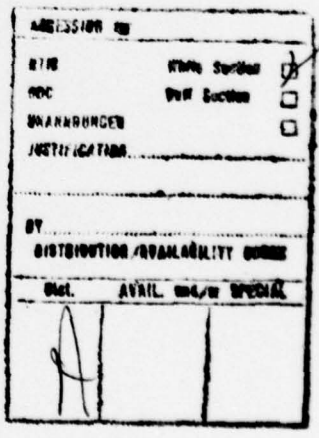
27 Enclosures
Change 1 pages

409 658 JCB

EFFECTIVE PAGES - JANUARY 1978

This list is used to verify the accuracy of CSM UM 9-77 Volume II after change 1 pages have been inserted. Original pages are indicated by the letter O, and change 1 pages by the numeral 1.

Page No.	Change No.
Title Page	0
ii	0
iii	1
iv	0
v	1
vi	0
1-2	0
3	1
4	0
5-9	1
9.1-9.2	1
10-17	0
18	1
19-24	0
25-28	1
29-43	0
44	1
45-46	0
47	1
48-50	0
51	1
52-54	0



CONTENTS

ILLUSTRATIONS

SECTION 1. GENERAL

1.1 Purpose

This volume of the QUICK Users Manual is intended to inform the CCTC user/analyst on how to prepare control cards; structure execution (run) decks; prepare computer job requests; and understand the associated computer output, to include the recognition of error messages for the Weapon/Target Identification subsystem of QUICK. It complements information contained in the Maintenance Manuals on the QUICK System. The abstract of this document references other documents describing QUICK.

1.2 General Description

The Weapon/Target Identification subsystem of QUICK selects and processes the Red and/or Blue forces which are prespecified for a particular plan. The subsystem consists of modules JLM, DBMOD, INDEXER, and PLANSET, as shown in figure 1. Figure 2 shows the relationship of the Weapon/Target Identification subsystem to other QUICK subsystems in terms of procedural and information flow.

The modules of this subsystem are used to assemble selected target data from the CCTC JAD files, and reformat the data in a manner which is acceptable to QUICKs Integrated Data Base and to further develop a plan for allocation.

Modules within this subsystem are executed in the order of: JLM, DBMOD, INDEXER, and PLANSET. All modules perform updates to the Integrated Data Base; no other data files are used (other than internal temporary scratch files).

The first module, JLM, builds the target portion of the data base. Note that the remaining data base is created by modules within the Data Management subsystem. These modules may be executed at any stage of the entire QUICK processing, i.e., before or after INDEXER, etc. An order of module execution pertains only to modules not defined within the Data Management subsystem.

The next module normally run is DBMOD. Its primary purpose is to alter the content or characteristics of a data base to the specific scenario for which the plan is being developed, in accordance with prespecified user input.

Module INDEXER is designed to assign index numbers (attribute INDEXNO) and perform the task of forming complex targets.

Module PLANSET forms weapon groups, prepares the target list for the allocator, computes and normalizes the class value factors and calculates the representative attributes for complex targets.

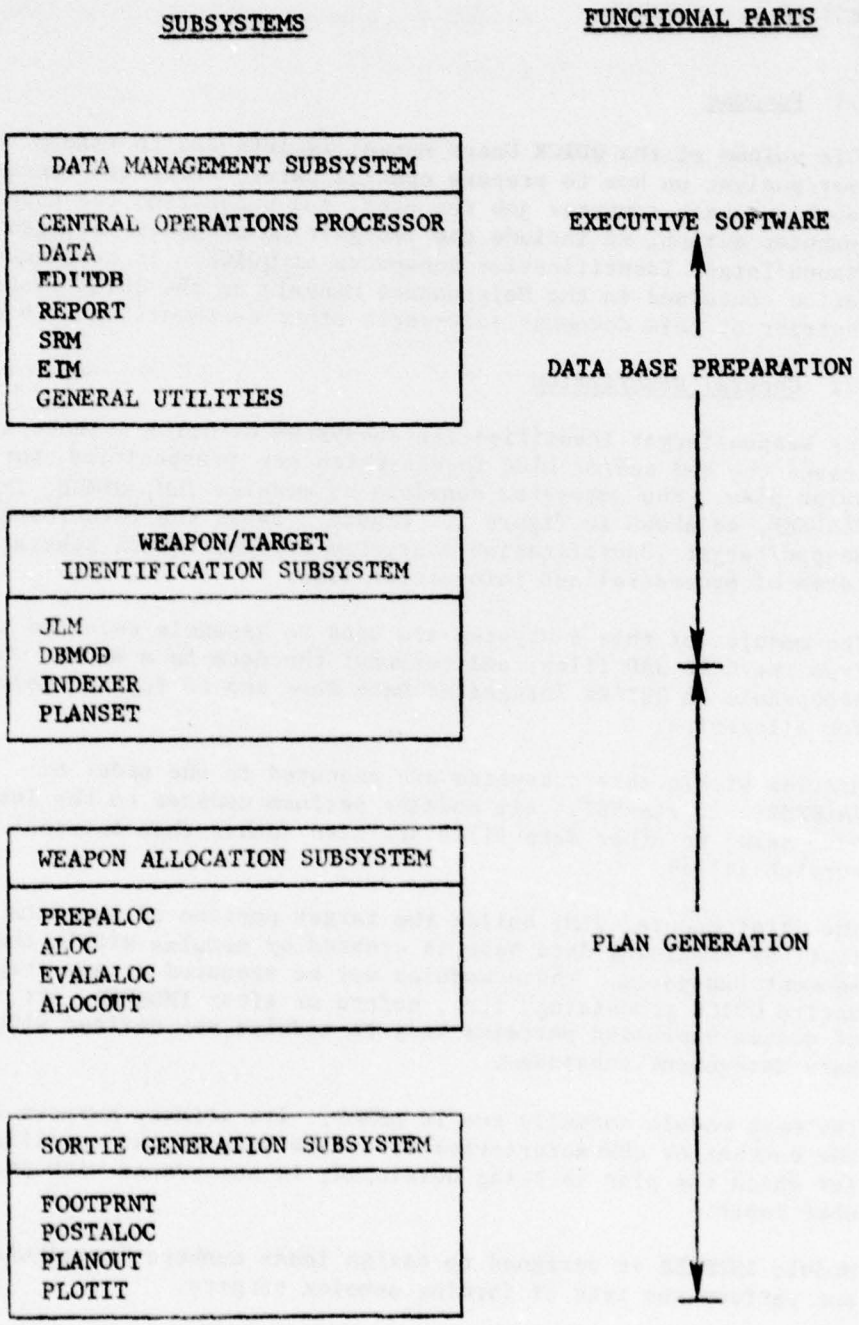


Figure 1. Major Subsystems of the QUICK System

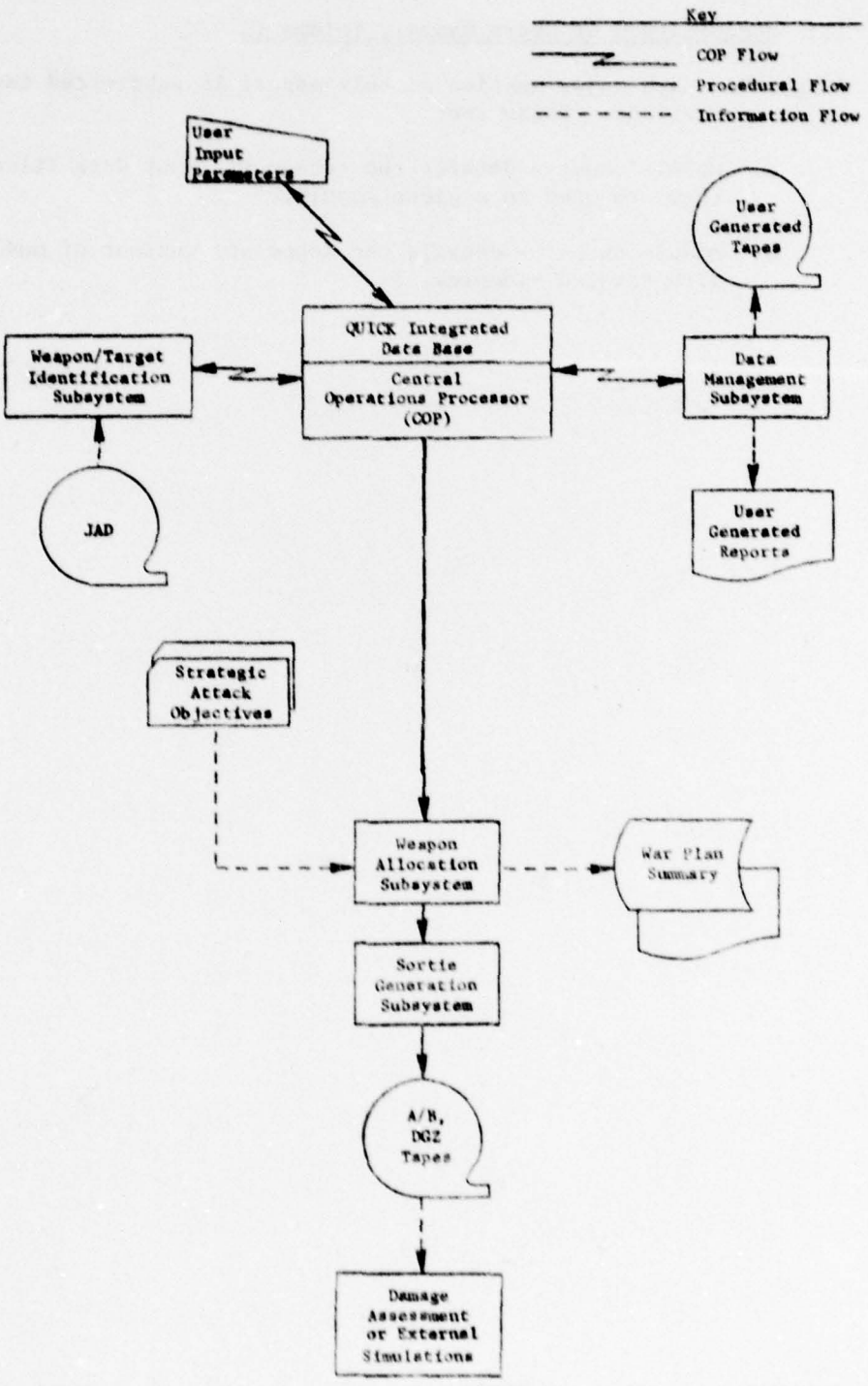


Figure 2. Procedure and Information Flow in QUICK/HIS 6000

1.3 Organization of Users Manual, Volume II

In general each major section of this manual is subdivided into two major subsections. These are:

a. Module input - details the set-up of input data files and how they are used in a given module.

b. Module output - details the scope and content of module output, with notated examples.

SECTION 2. JAD LOADING MODULE (JLM)

2.1 General Purpose

The function of the JLM is to build portions (targets) of the integrated data base by selecting records from a file that is in a JAD format. JLM operates in three modes. First, a section of the integrated data base called the Assignment table is built through user inputs. This table describes what sort of target is to be added to the data base and how it will be included. Second, given a completed Assignment table, the selection of JAD records is executed and a Damage Assessment tape is prepared for use in external processors. Third, after record selection, provisions are included for deleting individual records not required for QUICK processing. In the text English sense verbs ASSIGN, SELECT, and ASTERISK initiate the three JLM functions.

2.1.1 Assignment Table. The ASSIGN verb constructs the Assignment table which includes:

- The valid country code and what region and side the country is in;
- The target classes for each side;
- The section criteria for each target type based on category code, owner, location, and capacity or name;
- The TASK that corresponds to the target type; and
- The list of DESIGs (alphabetic portion) that are to be used.

2.1.2 Selection Process. Using the developed Assignment table, the SELECT verb reads a JAD formatted file and stores target related data within the integrated data base. An option exists where additional target data may be included within a partially filled data base. There is, also, a second option that permits the automatic calculation for attributes TARDEFHI and TARDEFLO.

The user can bypass the construction of the Assignment table by using a BTL, BTB or DBASSES file in conjunction with the ORDER clause. The input file must contain a DESIG, target type, region and an index into the list of classes in the ORDER clause. The UNIT clause determines if this Bypass option is to be used.

In addition to storing target data within the integrated data base, the SELECT verb will generate a JAD format file which includes type, task, and DESIG information. This file will be used by the ASTERISK verb.

2.1.3 Finalized Output. The ASTERISK verb is used to finalize what target records are to be retained within the integrated data base and produce a Damage Assignment tape for input to processors external to the QUICK system.

The ASTERISK portion of the JLM uses the JAD formatted file provided by the SELECT verb and a list of DESIG ranges that specifies what target records are to be retained within the integrated data base. Any target whose DESIG does not fall within the ranges listed, is deleted. The Damage Assessment tape is produced and an asterisk added to the DESIG if the record is within the list.

2.2 Input

2.2.1 The ASSIGN Verb. The ASSIGN verb has two required adverbs (PLAYERS and ALPHAS) plus one optional adverb (ONPRINTS). PLAYERS, ALPHAS or both must be present. The ONPRINTS adverb will cause the region/country code and/or the Assignment to be printed.

2.2.1.1 The PLAYERS Adverb. This adverb creates or modifies a list of valid country codes and their associated region and side. The general form is:

ASSIGN PLAYERS side // region / country-code

{, country-code . . .} {side // region . . .}

The side must be first, the region must be preceded by two slashes and the list of country codes must be preceded by a single slash. For a given clause there may be more than one appearance of both the double and single slash symbols. If the double slash is repeated, a new region is being defined for the same side. A repeat of the single slash introduces countries for the most recent region (the last occurrence of a double slash) and the given side. Consider an example of the most complicated form:

ASSIGN PLAYERS BLUE//3/JA,TH//1/US RED//1/UR//3/CH

Country codes JA and TH are assigned to region 3 of side BLUE and US to region 1. UR is assigned to region 1 of side RED and CH to region 3. From this general example, a simpler example would be:

ASSIGN PLAYERS BLUE//3/JA

Care should be taken with the country codes since there are many short special words within the dictionary that are reserved for text English commands. Examples are AS, IN, and OR. If AS is a country code it can be defined with quotes around it, that is 'AS'. Generally it is always safe to place pronounceable country codes in quotes.

2.2.1.2 The ALPHAS Adverb. The ALPHAS clause builds the bulk of the assignment and is the most generalized. Consider the form:

ASSIGN ALPHAS side // class - type [≥ { minimum-capacity / name }]

/ low-catcode [= high-catcode] [* task] ,

desig-alphabetic [, alternate-desig . . .]

[[NOT] { OWNED BY / LOCATED IN } country-code [, country-code . . .]]

General comments are:

- o The side must be first.
- o The target class must be preceded by two slashes.
- o The target type must be preceded by a dash.
- o If minimum capacity or name is used, it must be preceded by a greater than symbol.
- o The lowest catcode must be preceded by one slash and if a range of catcodes are used the highest catcode is preceded by a dash.
- o Task is preceded by an asterisk and DESIG by a comma.
- o Country codes are preceded by either OWNED or IN if the assignment is restricted.

A simple form of the clause would be:

```
ASSIGN ALPHAS BLUE//MISSIL- 'MM-I'/11111*AB,AD
```

This causes a MISSIL Class of type MM-I to be created on the BLUE side with a DESIG beginning in AD and a task of AB. Any target with a catcode of 11111 will be treated as an 'MM-I'. Note that MM-I is in quotes. Any name with '/', '-' or any other operator imbedded in it should be placed in quotes. A new class may be started at the double slash; a new type at the dash; and a new catcode at the single slash.

If the type has a range of contiguous category codes, the following is possible:

```
ASSIGN ALPHAS BLUE//MISSIL - 'MM-I'/10000-11000, AD*AB
```

Note, also, the interchanging of DESIG and TASK inputs.

If more than one DESIG (alpha portion) is needed for some representation, alternates may be defined. Consider:

```
ASSIGN ALPHAS BLUE//BOMB - 'B52-H'/900-902*CC, AB, AC
```

In this example, if there are an insufficient number of DESIGs beginning with AB, AC will be used for the overflow. There is no limit on the number of alternate DESICs.

If the targets are to come from specific countries (say CA and UK) a command may be:

ASSIGN ALPHAS BLUE//BOMBER-B58/12555, AB*AA LOCATED IN CA, UK

Similarly assignments can be restricted based on ownership by replacing 'LOCATED IN' with 'OWNED BY'.

The operator 'NOT' negates a selection.

Different types can also be distinguished by the size (capacity) or name. For example:

ASSIGN ALPHAS BLUE//'U/I' - CITY > 100/77777, AA

This restricts the type CITY to catcodes 77777 and a capacity greater than 100.

2.2.2 The Select Verb. The use of the SELECT verb instructs the JLM to select records from the JAD format file according to the developed Assignment table. The SELECT command, including optional adverbs is:

SELECT [WHERE normal WHERE clause without OF or LIKE]

[UNIT value]

[ONPRINTS]

[REPLACING DUPLICATES] or [OMITTING DUPLICATES]

[ORDER class [,class,class,. . .]][, side, input type]

[SETTING TARDEF $\left\{\frac{\text{EQUAL}}{=}\right\}$ ON]

The ONPRINTS adverb simply causes the print of the output JAD formatted file.

The WHERE clause is a generalized clause (see text English language section 3 of Users Manual Volume I) and allows for enhanced selection from the input JAD. Any attribute within the integrated data base can be used. For example:

SELECT WHERE ACLASS = 'U/I' AND NOT NAME EQUAL MOSCOW

This command, in addition to the Assignment table selection, will select only U/I class targets that are not named MOSCOW. Within the game

to be developed attributes CLASS, TASK, TYPE, IREG are frequently employed in describing the nature of a target. Within the WHERE clause for this verb attributes ACLASS, ASNTASK, ATYPE, and REGION respectively contains the entries for the game related attributes. That is the latter mentioned attributes must be used for defining the target selection. Upon selection, the correct attributes will be stored.

If the input JAD file is not on unit 20, the UNIT adverb must be used.

If the UNIT adverb has a value greater than 100 the Bypass option is to be used and the actual input unit number is 100 less than the value.

The user has the option of running SELECT on a partially built integrated data base. Hence, the capability of either replacing duplicate records or ignoring them is useful. A duplicate target is anything with identical values for WACNO and BENO. In order to replace existing targets the phrase REPLACING DUPLICATES is used. OMITTING DUPLICATES causes the new target to be ignored. Care should be used in exercising these options since with a data base of any size at all, the run time becomes excessive.

The ORDER clause allows the user to specify the arrangement that the classes will be added to the integrated data base. A command such as

SELECT ORDER MISSIL BOMBER TANKER 'U/I'

would cause targets to be added to the data base accordingly.

If the Bypass option is being exercised, the last two items in the ORDER clause must be the SIDE the targets are on and the type of input file (BTB, BTL or DBASSES).

The SETTING clause is used to set the value of TARDEF to allow for automatic assignment of values for TARDEFHI and TARDEFLO.

2.2.3 The ASTERISK Verb. This verb removes targets from the integrated data base and flags all target records on the output JAD format file. If identical target records reside both within the integrated data base and the JAD file, an asterisk is placed on that record within the JAD file. There are two adverbs associated with the ASTERISK verb and the general form is:

ASTERISK [ONPRINTS]

KEEPING lowdesig [- highdesig]

[, lowdesig [- highdesig] . . .]]

ONPRINTS, optional, directs the printing of the output JAD format file.

The KEEPING adverb consists of a list of DESIG ranges that are to be kept in the data base and flagged on the output file. For example:

KEEPING AB053-AB732, AC110, BB111-BB199, DA001-PF999

will cause that target with DESIG FF055 to be kept but DESIG AC100 to be dropped.

2.3 Output

2.3.1 Standard. The only standard output JLM produces is the completion message.

2.3.2 Non-Standard. The ASSIGN verb can generate two types of reports: (1) a list of legal country codes (figure 3) and (2) the Assignment table (figure 4). The only output from the SELECT and ASTERISK verbs is a JAD format file (figure 5). The third column presents those items used by QUICK; the fourth column presents those items created by JLM if the Bypass option is not exercised.

2.3.3 Error Messages. Any error messages that may be encountered within the JLM are explained in figure 6.

```
LEGAL COUNTRY CODES FOR EACH REGION (1)

SIDE RED (2)

REGION  1 (3)
    BD CU MO MX UR (4)

REGION  2
    AL BG BU CZ EG GC HG HU IT PL PO RM RO YG

REGION  3
    CH KN MG NK NV VN

SIDE BLUE

REGION  1
    AK CA CL HW US

REGION  2
    FR IR SP TK UK WG

REGION  3
    GM JA PK SK

DESIGS AND MAX VALUE FOR EACH REGION
PF   0 499 799
AD   0 499 799
AC   0 499 799
AB   0 499 799
(5)  (6)(7) (8)
```

HEADING	DESCRIPTION
(1)	Table name
(2)	Side country codes are on
(3)	The region for the country codes
(4)	List of valid country codes
(5)	Alpha portions of this DESIG
(6) (7) (8)	The largest numeric portion for region 1, 2, and 3 (0 means none)

Figure 3. Legal Country Codes For Each Region

26 TASK IS NON-ALPHABETIC OR MISSING (side) SIDE (class) CLASS (type) TYPE (low catcode)-(high catcode)

The task is either completely numeric and not enclosed in quotes or there is an extraneous asterisk (*) imbedded in a name.

27 WARNING ASNREC CHANGED FOR COUNTRY (country-code) TYPE (type) CATRANGE (low-catcode high-catcode) TASK (task) FLAG (1,2,3) NEW CATRANGE (new-low-catcode new-high-catcode)

The range of legal category ranges has been extended.

28 (side) IS NOT A VALID SIDE

This side does not exist in the data base. Missing punctuation could cause this alphanumeric to be considered a side.

29 LOST LOOKING FOR NEXT SIDE (pointer input-value 1 or 2)

An unexpected value has occurred in the input

30 COUNTRY CODE NON-ALPHABETIC OR MISSING (side) SIDE (class) CLASS (type) TYPE (low-catcode)-(high-catcode)

Check for a country code at this location that is a special word or null.

31 INVALID MINIMUM CAPACITY -0 ASSUMED (side) SIDE (class) CLASS (type) TYPE

The value following this greater than (>) is neither numeric nor alphabetic.

32 NO DESIGS WERE ASSIGNED (side) SIDE (class) CLASS (type) TYPE (low-catcode)-(high-catcode).

No DESIGS were assigned to this type. If this is a new type problems will occur if SELECT is run before it is assigned a DESIG. See if the DESIG is a null.

33 WARNING-ATTEMPTING TO RECOVER

This message explains that in spite of this preceding error an attempt is going to be made to continue processing.

Figure 6. (Part 4 of 5)

34 $$$ WARNING ALPHAS LOST BECAUSE OF (number 1 number 2) AT (location) ATTEMPTING TO FIND SOMETHING FAMILIAR LAST KNOWN VALUES WERE (side) SIDE (class) CLASS (type) TYPE (low-catcode)-(high-catcode)

This message shows where the input error occurred. The values are an aid to the maintenance programmer to find out what and where the error was. This message will be followed by one of the following two messages.

35 (number) WORDS SKIPPED IN ATTEMPT TO RECOVER

This message will provide the maintenance programmer with an idea of how much information was lost before a recovery could be made.

36 * UNABLE TO RECOVER - EXITING ALPHAS

The routine was never able to find anything familiar

37 (name) IS NOT A VALID PRINT REQUEST

Consult a maintenance programmer. Some unknown routine is attempting to use this routine.

38 (number) IS TOO MANY CLAUSES - ONLY FIRST SIX USED

Only six clauses can be in SELECT without being self-contradictory. Check input.

39 (number) IS AN ILLEGAL ADVERB NUMBER FOR SELECT

The only valid adverbs for SELECT are OMITTING, REPLACING, SETTING, UNIT, WHERE, ONPRINTS and ORDER.

40 ** WARNING - DESIG (DESIG) ALREADY EXISTS IN THE DATABASE IT IS BEING REPLACED BY @@ (number) THERE HAVE BEEN (number) DUPLICATES

The Bypass option is being used and the file contains a non unique DESIG.

41 ** ERROR ** NO HEADER FOR RECORD TYPE (type) WITH CLASS OF (class) ON SIDE (side)

The header record specified does not exist. The DBASSES tape with the Bypass option will produce the message for class 999999 normally.

Figure 6. (Part 5 of 5)

SECTION 4. MODULE INDEXER

After a scenario has been selected, module INDEXER performs necessary calculations and additions to the refined data base. The major objectives of INDEXER are to: (a) assign unique indices to all targetable records (referred to as index number, attribute INDEXNO); (b) automatically calculate time decaying value points for all target bomber and missile bases; (c) calculate for each unique target vulnerability a complexing lethal radius based on user selected yields; (d) complex individual targets based on selected algorithm; and (e) define the target complex classes.

User options pertain to the level used to create the output prints and the specification of weapon yields used in forming complexes.

Standard output prints will provide reports for: (a) lists of typename versus lowest index number for that type; (b) individual complex elements and the complex number in which they reside; and (c) a complete list of target vulnerabilities.

4.1 Input

The verb INDEX directs the COP to execute module INDEXER. In addition, the verb may be followed by a maximum of three operational clauses. The general form of the command is:

INDEX [WITH (SIDE, YIELD) {=, EQUAL} (value, value)]

[ONPRINTS] [VNOPTION]

Discussion of each optional clause follows.

4.1.1 The Optional WITH Clause. The WITH adverb precedes a phrase which indicates a particular yield for determining complexing lethal radii. The yield input units are in kilotons. If the WITH clause is absent, complexing will be performed using a default value of 1 megaton.

4.1.2 The Optional VNOPTION Clause. VNOPTION permits the complexing to be done through the use of hard coded (see Program Maintenance Manual Volume II) critical distance tables. No other information is required with this clause.

The absence of this clause implies complexing with a single value of weapon yield (defined through the WITH clause) for all target elements. This clause permits complexing with various values of yields to be determined from the 'VNTK' portion of each target element. From the 'VNTK' value, a yield is obtained, then an adjusted VN calculated and from there parameters a complexing lethal radius for each target element is obtained.

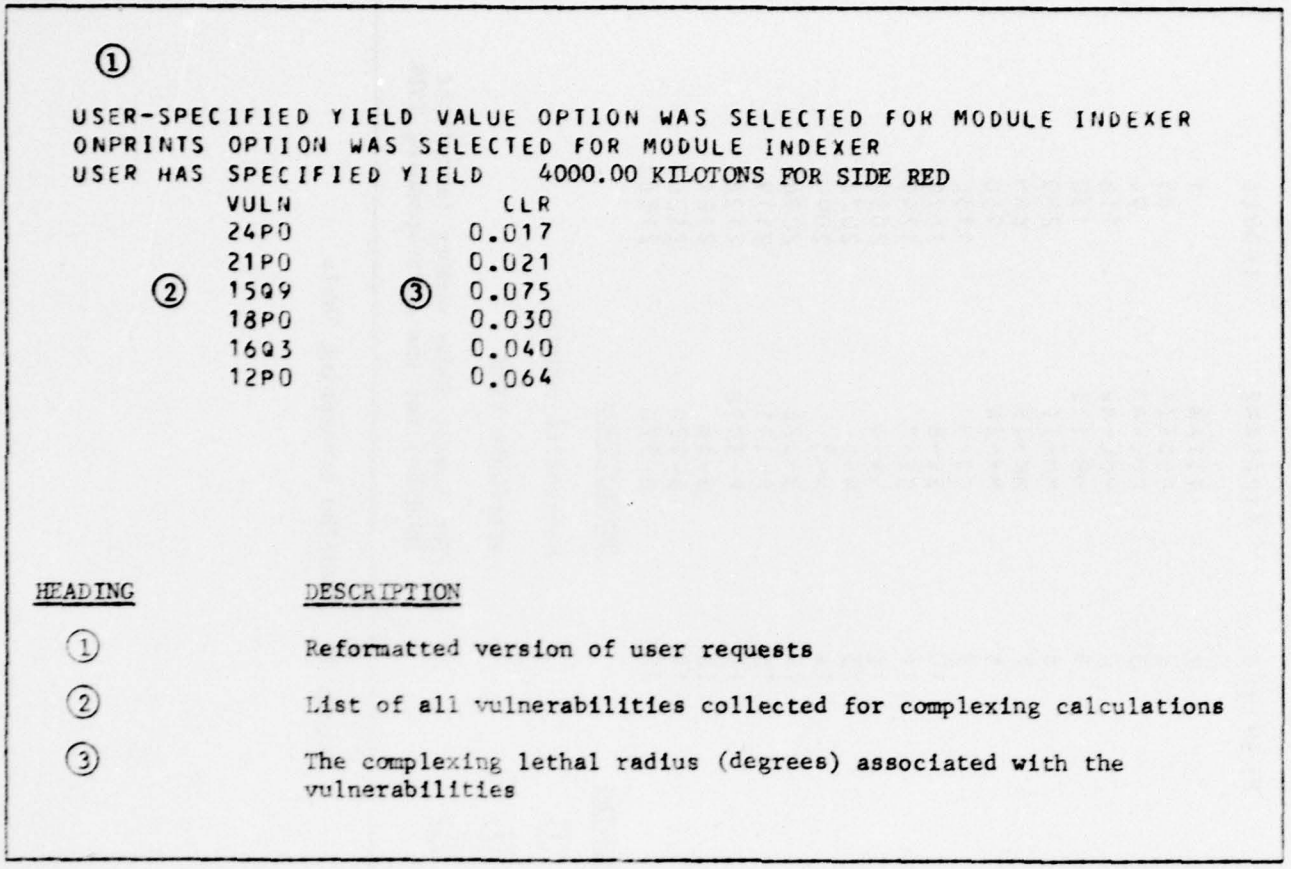
4.1.3 The Optional ONPRINTS Clause. This adverb produces nonstandard prints. If included within the command, detailed complex prints will be generated.

4.2 Output

There are two standard reports generated as shown in figures 11 and 12. Figure 11 information shows a reformatted version of user inputs plus a list of unique target vulnerabilities and their associated lethal radii used for complexing. Figure 12 lists all unique TYPE values for all targetable items.

If the ONPRINTS adverb is included in the user inputs, detailed complexing (figure 13) data is printed. Each target element within a complex is printed supplying data as defined by the header. The last two lines of print summarizes the total number of complex collections and, also, the total number of all target elements within all complexes.

The error messages detailed in figure 14 will be printed if problems arise in processing the data base.



①

USER-SPECIFIED YIELD VALUE OPTION WAS SELECTED FOR MODULE INDEXER
ONPRINTS OPTION WAS SELECTED FOR MODULE INDEXER
USER HAS SPECIFIED YIELD 4000.00 KILOTONS FOR SIDE RED

② VULN	③ CLR
24P0	0.017
21P0	0.021
15Q9	0.075
18P0	0.030
16Q3	0.040
12P0	0.064

HEADING	DESCRIPTION
①	Reformatted version of user requests
②	List of all vulnerabilities collected for complexing calculations
③	The complexing lethal radius (degrees) associated with the vulnerabilities

Figure 11. Target Formation Control Summary

①	②	③
PLANTYPE	TYPENAME	INDBEG
1	TITAN	1
2	POSEID	85
3	POL-A3	94
4	POL-A2	118
5	MM-III	130
6	MM-II	280
7	MM-IB	680
8	MM-IA	980
9	SS-9	1130
10	SS-8	1670
11	SS-7	1790
12	SS-6	2030
13	N-5	2078
14	N-3	2090
15	B-52E	2096
16	F-111	2119
17	F-111B	2122
18	B-58	2124
19	B-52H	2126
20	B-52G	2136

HEADING	DESCRIPTION
①	Sequential counter
②	Attribute TYPE
③	The lowest index number (attribute INDEXNO) for the corresponding TYPE

Figure 12. INDEXNO Breakpoint Table

(1)

PAYLOAD TABLE

(2) PAYTBLNM	(3) NBOMB1	(4) TYPE1	(5) NBOMB2	(6) TYPE2	(7) NASM	(8) TYPEASM	(9) NCM	(10) NDECOY	(11) NAREADEC	(12) MIRVWRHD	(13) PAYALT
B-47A	2	MK-5	0		0		0	0	0	0	HIVAL
B-47B	2	MK-7	0		0		0	0	0	0	HIVAL
B-47C	1	MK-18	0		0		1	0	0	0	HIVAL
B52GH1	4	MK-5	0		2	HNDOOG	1	0	0	0	HIGH
B52GH2	2	MK-18	0		2	HNDOOG	2	2	0	0	LOW
B-52E1	2	MK-7	0		0		1	2	0	0	HIVAL
B-52E2	2	MK-7	0		2	HNDOOG	1	0	0	0	HIVAL
B-58	3	MK-5	1	MK-18	0		1	0	0	0	HIVAL
MM-II	1	MK-17	0		0		0	2	2	3	
MM-IB	1	MK-5	0		0		0	0	0	0	
MM-IA	1	MK-5	0		0		0	0	0	0	
TITAN	1	MK-18	0		0		0	0	0	0	
POSEID	1	MK-20	0		0		0	0	0	10	
POL-A2	3	MK-12	0		0		0	0	0	0	
POL-A3	3	MK-12	0		0		0	0	0	0	

HEADING	DESCRIPTION
(1)	Name of table
(2)	Payload table number; links to a weapon system type
(3)	Number of first bomb type carried
(4)	Type of first warhead (warhead table)
(5)	Number of second bomb type carried
(6)	Type of second warhead (warhead table)
(7)	Number of ASMs
(8)	Type of ASM (ASM table)
(9)	Number of countermeasures carried by vehicle if vehicle is a bomber
(10)	Number of decoys on vehicle
(11)	Number of area decoys for ABM
(12)	Number of reentry vehicles, if MIRV
(13)	Attribute specifying weapon release altitude

Figure 21. Payload Table Print

(1) WEAPON TYPE CHARACTERISTICS

(2) →

		1	2	3
(3)	TYPE	MM-III	POL-A2	B-52G
(4)	CLASS	MISSLE	MISSLE	BOMBER
↓	ALRTDB	0.	0.	0.
	ALTDLY	0.	0.	0.
	CEP	0.60000	1.00000	0.50000
	CMISS	0.00020	0.00035	0.
	FUNCTI	ICBM	SLBM	LRA
	IRECMO	0	0	1
	IREP	4	4	0
	LCHINT	1.000	1.000	0.240
	NLRTDB	0.	0.	0.
	NALTDLY	0.	0.	0.
	NMPSIT	1	16	0
	PDES	0.10000	0.	0.
	PFPF	0.05000	0.10000	0.
	PINC	0.90000	0.86000	0.
	PLABT	0.08000	0.12000	0.
	PRABT	0.	0.	0.
	RANGE	6300.0	1500.0	8200.0
	RANGED	0.	0.	3.0000
	RANGER	0.	0.	9700.0
	REL	0.790000	0.600000	0.900000
	RNGMIN	0.	0.	0.
	SIMLUN	5	1	1
	SPDLO	0.	0.	270.0
	SPEED	12000.0	6000.0	485.0
	TOFMIN	0.	0.	0.

HEADING	DESCRIPTION
(1)	Table name
(2)	Column number
(3)	TYPE of weapon system
(4)	Values of the named attributes as input for weapon systems. See appendix A of Users Manual I for a description of each attribute

Figure 22. Weapon Type Characteristics

(1) TARGET SORT LIST

(2) TASK	(3) DESIG	(4) NAME	(5) CTRYLOC	(6) FLAG	(7) INDEXNO	(8) COMPLEX NUMBER	(9) STATUS	(10) TYPE	(11) TGTNUM	(12) VALUE	(13) MISDEF	(14) LAT	(15) LONG	(16) VULN
	AB829	HANOI	NV	0	2227	1	C	DISTRI	60	3.000	0	21.023	254.170	12P0
	AB830	CANTON	MX	0	2228			DISTRI	120	3.000	0	23.160	246.750	12P0
	AB831	PEKING	MX	0	2229	5	C	DISTRI	21	3.000	0	39.920	243.390	12P0
	AB832	NANKIN	MX	0	2230			DISTRI	81	3.000	0	32.050	241.200	12P0
	AB833	FUCHOU	MX	0	2231			DISTRI	141	3.000	0	26.100	240.700	12P0
	AB834	MUKDER	MX	0	2232			DISTRI	42	3.000	0	41.810	236.670	12P0
	AB835	PYONGY	MX	0	2233	33	C	DISTRI	102	3.000	0	39.010	234.210	12P0
	AB279	KHADAR	MX	0	2234	2	CL	DISTRI	3	3.000	0	48.550	224.850	12P0
	AB280	PRAGUE	MX	0	2235	1	C	DISTRI	63	3.000	0	54.090	345.580	12P0

HEADING	DESCRIPTION
(1)	Name of table
(2)	Task - subtask
(3)	Target designator
(4)	Target name
(5)	Country location
(6)	Attribute FLAG
(7)	*Target Index number*
(8)	Complex number, if blank target not a complex member
(9)	Target status: = blank, simple target = C, member of a complex = CL, lead member of a complex = M, multiple target = ML, lead member of a multiple target
(10)	Target type
(11)	Reordered target number, assigned by SPTTGT
(12)	Value of the target
(13)	Number of terminal interceptors
(14)	*Target latitude*
(15)	Target longitude
(16)	Target vulnerability

Figure 25. Target List Print

(1) COMPLEX TARGET LISTING

(2) →

ICOMPLEX	INDEXNO	NAME	TASK-ST	DESIG	SIDE	CLASS	TYPE	LAT	LONG	VULN
4	2233	PYONGY		AB835	RED	DEFCON	DISTRI	39.010	234.210	12P0
4	2365	PYONGY		AB308	RED	C/C	NATION	39.000	234.200	1209
5	2229	PEKING		AB831	RED	DEFCON	DISTRI	39.920	243.590	12P0
5	2364	PEKING		AB307	RED	C/C	NATION	39.900	243.600	1209
12	2743	KHABAR		BD223	RED	U/I	RCITY	48.600	224.800	12P0
12	2234	KHABAR		AB279	RED	DEFCON	DISTRI	48.550	224.850	12P0
13	2227	HANOI		AB829	RED	DEFCON	DISTRI	21.020	254.170	12P0
13	2363	HANOI		AB306	RED	C/C	NATION	21.010	254.170	1209

HEADING	DESCRIPTION
(1)	Table name
(2)	Self explanatory target data. The first target for each complex is the representative target of the complex.

Figure 26. Complex Target Data Print

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